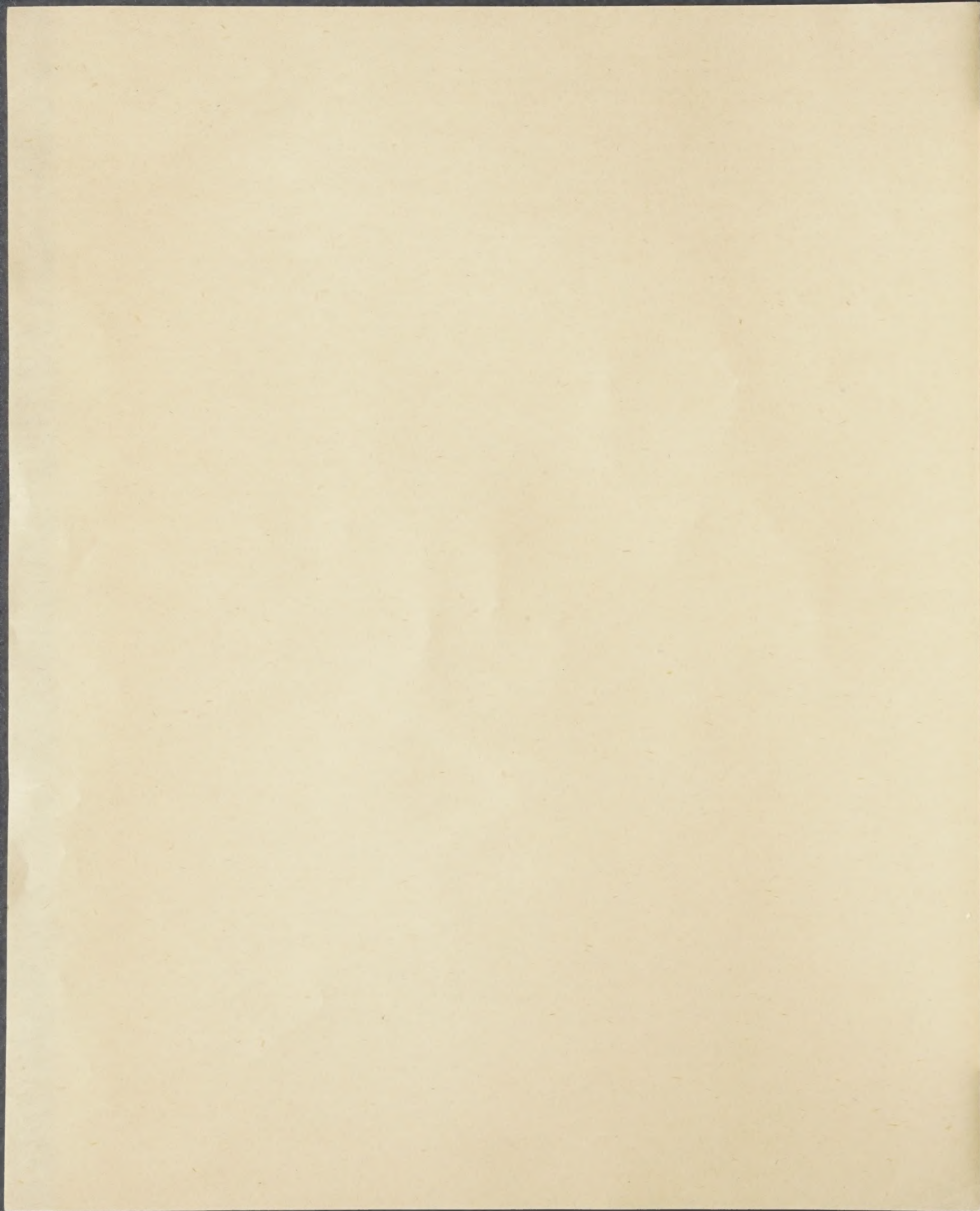


Bott, Edward Alexander

April-May 1917

(31)



RE-EDUCATIONAL WORK FOR SOLDIERS

DURING the past session a special phase of voluntary war work has been undertaken by members of the University staff in the Faculty of Arts. The term "re-educational", in this connection, is distinct from "vocational" in that the standpoint of the former is therapeutical rather than industrial. It is an attempt, through the use of special methods applied in the period of convalescence prior to final discharge, to restore as nearly as possible to normal certain types of physical and mental disability. The treatment referred to is also distinct from, and supplementary to the regular medical attendance furnished at convalescent hospitals and homes, and has been undertaken through the co-operation of Dr. Goldwin Howland and other medical practitioners now in charge of returned soldiers. Suitable cases for re-educational treatment are at present referred to the University from clinic, in local military hospitals, where they regularly receive massages and in addition the majority of such cases are attending one or more vocational classes.

The principle underlying re-educational work is to put within a patient's reach the proper apparatus, assistance, and encouragement for practising such physical movements, or mental processes as may have been interfered with or have entirely disappeared through injury or shock. Individual attention is the keynote throughout, each case being a study in itself. In commencing treatment a detailed survey of the patient's present capacity of actual performance is first undertaken, to ascertain what functions are intact in whole or in part, that may serve as a foundation in working back to normal. An individual instructor then gives his attention exclusively to a given case, and apparatus appropriate to the condition is devised and constructed. There are several advantages of this arrangement as supplementary to the electrical and manual massage regularly given at military hospitals. Mechanical appliances need not be expensive to be effective, but they contribute toward restoration of movement and control by eliciting through a precise task that most essential factor, the patient's own

concentrated effort. The co-ordination of a partially paralysed arm, for instance, improves more rapidly by driving a nail, catching a ball, whittling a stick, or threading a needle, than simply by having the lame joints flexed. Each man practices daily a variety of exercises suitable to his condition, and once a week is tested upon a number of typical performances. The careful measurement and recording of accomplishment, the interest aroused through individual sympathetic assistance, the sight of others' success, and the ambition to outgrow his own special apparatus, have served to increase the rate of progress of most cases, and to arouse others from a pardonable state of depression which had previously prohibited improvement.

For example, a difficult case of hysterical paralysis of both legs, in a well-knit young man of twenty-two, was recommended in January 1917. There was a history of burial under sand-bags in April 1916, without visible injury. A suspected local injury in the spine was not substantiated, and in addition to electrical treatment, hypnotism had been used in England without permanent improvement. On coming to the University he could walk with great difficulty with the use of a cane, hitching the legs forward by movements of the body. He could not step over an inch stick, nor raise either foot from the ground. He could not displace a football that was one inch from his toe, nor put out either limb to save himself from falling. Any prolonged attempt to step forward would presently precipitate a most violent shaking of the limb. He thought he had ceased to improve, and was deeply depressed. After attending for two weeks his point of view changed—he resolved he could improve. Within three months he has regained sufficient control to discard his cane, to walk about fairly easily, to mark time, to step over hurdles four inches high, and to kick a tethered football across the room at a target a yard above the floor. His spirits have vastly improved, and the prognosis is for full recovery.

The treatment of distinctively psychological symptoms is more difficult than most cases of paralysis, but is meeting with success although improvement is usually less rapid. The cases of this sort include loss of speech, temporary partial blindness, disturbances of memory and association, and very frequently in "shock" cases an inability to concentrate upon the simplest tasks, this being marked by a high susceptibility to fatigue, and to brief periods of "confusion". It is found that discouragement and depression

often have deepened into obsessions regarding the impossibility of improvement, owing to supposed conditions or causes that have no basis in fact. The principles described above, namely active employment and measurement of such processes as are found intact are also used in these cases, the first requisite being to cultivate a favourable attitude in the patient.

The work was originally begun last fall, in a more or less experimental way, at the College Street Military Hospital. Two men were treated there daily in the open wards, and made sufficient progress to warrant the continuance of the work upon a larger scale. The accommodation, however, in all military hospitals being already overtaxed, space was offered by Prof. W. G. Smith in a lecture room of the Psychological Laboratory in the Main Building. With the approval of Dr. Howland and other doctors in charge, a class was formed to treat men at the University daily, except Saturday, from four to five p.m. During the Michaelmas term three men who were able to walk from the College Street Hospital attended. At the opening of the new year it was decided to increase the number of selected patients to six, and it has since grown to nine. Additional members of the staff to the number of ten gave freely of their time to instruct men at special hours, and a daily service by private motors was arranged for soldiers unable to walk. The apparatus has now overflowed the original room into three others.

Sixteen cases have been handled in all. Of these, one who learned first to creep and then to walk since August 1916, is now practically normal at the time of discharge. Unfortunately three have been discharged from the service while convalescing satisfactorily, and have had to discontinue treatment in order to look for such work as they were able to do. Two patients have been absent some time through recent accidents, and one from sickness. In two further cases apparatus has been supplied to men at the hospital, in order to enable them to treat themselves. It is, in fact, a chief object of re-educational treatment to encourage and instruct the men to treat themselves. One case only has been discontinued for lack of progress.

In an account of what the University re-educational work is doing there should be a place for acknowledgment of help from certain persons whose interest has made it possible. The incentive to commence such treatment in Toronto as war work is due to the suggestion, encouragement, and personal instruction of Dr.

Shepherd Ivory Franz, psychologist at the Government Hospital, Washington, D.C., whose pioneer work in the re-education of demented paralytics is attracting wide attention in the medical profession. It is desired, further, to thank Professor Mavor for his assistance in commencing a fund for this work. Mr. Currelly and Mr. Graham Campbell have facilitated the building of appliances in their University workshops, and thereby contributed materially to making the work a success. Mr. Campbell has also raised sufficient funds for the present term, the generosity of numerous subscribers having made it possible to purchase or construct the necessary equipment. Acknowledgment too is made of the co-operation of those citizens of Toronto who, through all weathers, have maintained a regular motor service between the hospitals and the University, also of the unsparing energy of Mr. H. K. Gordon who in acting as secretary has co-ordinated and intensified different aspects of the work.

The results achieved during the past session, as well as the rapid increase in the number and urgency of cases, unquestionably warrant an immediate development of re-educational work, not only in the University of Toronto, but wherever in the Dominion such convalescent cases are cared for. Such training is widely established in Britain and in France, why not in Canada? If the University re-educational work is to continue during the coming summer, a measure of re-organisation will be necessary, including further help in funds and in assistants. These are problems to the solution of which Alumni of the University can contribute. It is hoped that in the summer months a response as hearty as that given in the past winter will be forthcoming.

EDWARD A. BOTT,

Dept. of Psychology.

EDITOR'S NOTE :—An account of the work for returned soldiers now being carried on at the University was requested by the Editor for publication. We wish to emphasise that this work is one that admits of great development and that it would be of service to the country if citizens would give liberally of their means for this purpose. Dr. Howland hopes that the re-educational work may be continued during the summer, but it is difficult to see how this can be done without some financial aid. Apart from the matter of assistance, \$75 to \$100 per month will be required for equipment necessary for efficient work. Contributions are sent to H. K. Gordon, Honorary Secretary, "University Re-educational Work", University of Toronto.

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April 26, 1917.

President Falconer,
University of Toronto.

Dear Mr. President:

Kindly find enclosed a copy of the program for this summer's work which I have sent to Captain Ryan, Medical Officer, District N. 2. You will notice that I have emphasized our larger problem of invalided men in Canada, and have proposed a summer scheme that is calculated to help solve it. Unfortunately your absence from town earlier this week prevented me having you look over the plan before it was sent to the Commission, but I trust that my statement regarding what part the University would endeavour to play in an expansion of re-educational work under the Hospitals Commission is in accord with the points we discussed recently.

With reference to research I have had unfavourable word from Dr. Mottram. While he is anxious to be at work again, and would gladly undertake what I propose, his lungs are not yet perfectly healed although they are improving steadily. His physician advises him to remain at Gravenhurst until the autumn.

Professor Macallum, whom I saw yesterday, is favourably disposed toward investigation of the sort proposed, and is willing to recommend Mr. W. E. Blatz of his staff as a suitable candidate. He also mentioned Dr. Hartmann. I have not ascertained Dr. Hartmann's plans for this summer, but I am already counting upon Mr. Blatz as an instructor for part time, and know that he would be available for full time. With Professor Macallum's support I feel that there will be no difficulty in securing a reliable person to take charge of the physiological side of our research work.

Concerning the matter of remuneration for an investigator, Professor Macallum thought the difficulties in the way of an Industrial Research Studentship might not be insuperable. I emphasized the point of view that a chief national problem in resources is now that of conserving and preserving our man power in order to be able to utilize material resources. Failing a studentship, I feel that if you could secure from the Board of Governors an allowance of \$50 per month for an investigator, who would receive a like amount from the Hospitals Commission for

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part time instruction, the work could be undertaken satisfactorily. If necessary, I would undertake raising the requisite funds for research equipment, a total of perhaps \$100, by private subscription.

The matter I am raising is, of course, dependent upon the action of the Hospitals Commission, which I hope will be immediate. I shall inform you of the Commission's reply, and hope that if it be favourable the University will then be able to co-operate.

Yours very faithfully,

E.A. Burt

PROF. C. K. CLARKE, M.D.

C. M. HINCKS, M.B.

PROF. W. G. SMITH, B.A.

E. A. BOTT, B.A.

May 8, 1917.

President Falconer,
University of Toronto.

Dear Mr. President:

In view of your request at our interview of the 2nd inst. I wish to inform you of subsequent developments in the organization of re-educational work.

I am enclosing copies of two letters. The first is from Mr. Armstrong, Director of the Commission, who promises, with the approval of President Lougheed, to endorse any plan of work that is submitted by Captain Ryan and myself. The second is from Colonel Massey formally offering quarters for re-education in Hart House for the duration of the war.

On Friday the 3rd inst. Dr. Gallie visited our laboratory. He is strongly in favour of re-educational work, but is desirous of having it conducted mainly at the Davisville Avenue Hospital where he is to be in charge. I have since visited this hospital with him, and although the accommodation there has serious limitations from the standpoint of re-education, I have proposed to the Commission that appropriate work be conducted there in addition to that at Hart House. Mr. Armstrong is in favour of working at Hart House only, and this point is still to be decided. We are commencing immediately a census of cases in Toronto and expect to enter Hart House very shortly.

A chief requirement at the moment is the employment of a good mechanic and proper assistants. For the months from May to September Captain Ryan has approved as assistants Mr. W. E. Blatz, Mr. A. Lacey, and Mr. R. K. Gordon, to be employed at the rate of \$50 per month for half time or \$100 per month for full time should the work require it. The two latter are to be taken on at half time for the present, but I should like to have Mr. Blatz on full time duty, the additional time being devoted to scientific sides of the work.

With reference to Mr. Blatz I have been unable to obtain any assurance of a studentship. Professor Macallum and Professor McLennan both tell me that the Advisory Council on Scientific and Industrial Research does not meet until the latter part of May, and that their plans are still quite indefinite. It would seem, therefore, that if a means of undertaking research, a proper recording of clinical material etc. is to be secured, it must be provided by the University. This could be done by formally engaging half of Mr. Blatz.

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time for the purpose, that is, by an appropriation of \$50 per month from May 15th. If this were to be undertaken I would suggest that the arrangement be a tentative one which could be reconsidered in September.. If you think this course advisable would you kindly bring the matter up on Thursday?

Under the new regime in Hart House would you be in favour of retaining the title "University Re-educational Work", seeing that the Military Hospitals Commission is practically in full control?

Yours faithfully,

E. A. Bott

EAB/DS

PROPOSED ORGANIZATION OF UNIVERSITY OF TORONTO RE-EDUCATIONAL
WORK FOR MAY TO SEPTEMBER 1917, UNDER THE TORONTO BRANCH OF
MILITARY HOSPITALS COMMISSION.

Present Status and Purpose.

The re-educational work carried on through private contribution at the University of Toronto, concerning which I enclose a reprint, has been conducted as an experiment, namely, to try out the therapeutic value of selected active exercises as supplementary to treatment by massage in cases of traumatic and functional paralysis.

The results in terms of speeding up convalescence in such cases have exceeded expectation, and the same principles have likewise been applied with success to the mental disabilities which frequently accompany these conditions. Moreover, as is known from work in Britain and in France, these methods are directly applicable to the re-education of orthopedic cases.

Hitherto the value of the work here has been in demonstrating a method rather than in treating numerous cases. In view of this fact I feel that it is now highly desirable for the Military Hospitals Commission of Canada to put this principle into practice upon a scale commensurate with the Canadian problem. This would involve a measure of organization, first in the classification of cases at the port of entry, and secondly in the establishment of a specially equipped plant in conjunction with certain hospitals throughout the Dominion.

Toronto, for instance, is already an orthopedic centre, and re-educational treatment appropriate for such cases could be made available upon a large scale on the premises where these cases are to be housed. Similarly for functional and traumatic paralytics, as well as certain types of "shock", a suitable plant in one of the local military hospitals or in a locality central to several hospitals, could accommodate large classes for daily treatment.

The cost of such an undertaking need not be great, and would be insignificant in view of the shortened period of convalescence and the decreased pensions. A certain number of scientific appliances for an accurate survey of the condition and progress of cases would be indispensable, but simple apparatus which could be duplicated cheaply by soldier workmen has been found very effective for routine practice, and voluntary assistance by both men and women, when properly supervised, has likewise been found desirable.

If the Military Hospitals Commission can see its way clear to aim at carrying such a program into effect, I feel that the present re-educational work at the University of Toronto could be re-organized for the summer months under the Toronto Branch of the Military Hospitals Commission, in a way that would contribute directly to the larger plan, namely, as follows:

Aim of Re-organization.

- (1) To increase the present University work sufficiently to develop a satisfactory technique, and to perfect stock designs of apparatus for treating both orthopedic and paralytic cases.
- (2) To engage a small staff of paid workers who would specialize on different phases of the work, supervise volunteer assistance, and offer instruction in the principles of re-education to a certain number of men and women training for service in military hospitals throughout the Dominion.
- (3) To commence scientific research for a better understanding of the nature and treatment of certain new conditions encountered in this work, and for the careful compiling of scientific data respecting the history and course of convalescence of these cases.

I consider that point 3, which is of vital importance for re-educational work, should be undertaken by the University, whilst points 1 and 2, which are concerned with the practical problem, should be undertaken by the Hospitals Commission. With respect to organization of the latter I would suggest the following further details:

Plan of Re-organization.

- (1) To commence with 12 cases coming to the University hourly, by parties of 4, from two to five p.m. daily except Saturday; these cases to include the types that are to be treated in Toronto.
- (2) To employ a staff of four (exclusive of research workers); one chief instructor on full time, others on part time.
The personnel of this staff, the length of daily service, and the amount of pay should be settled by the Commission on the recommendation of the chief instructor, and should be determined by the nature and amount of the work undertaken. The terms of employment and of relief for the staff should be adjustable to developments.

I have secured an option until May 1st upon the services of three University graduates who could assist me in this work, two for part time, and one for full time. As the success of re-educational work depends largely upon the personal qualifications of those in charge, I would recommend that if this plan be considered favourably by the Commission, it be authorized within such time as would secure the services of these men.

- (3) I am authorized by the President of the University to state that the University will co-operate with the Hospitals Commission in furthering a summer program of re-educational work, as follows:

- A. By allowing the use, until September 1917, of the premises that have hitherto been employed for re-educational work, and reasonable additional accommodation in the Main Building so far as is found possible.
- B. By allowing the use of re-educational apparatus that has been built through private subscription and now belongs to the University, and of further apparatus being secured in that way.
- C. By endeavouring immediately to secure the services of a competent investigator and provide facilities for such research.

- (4) The Hospitals Commission, according to the plan of work here submitted, should undertake the following:

- A. To pay the staff of instructors in re-educational work from May until September inclusive.
- B. To pay for the necessary special apparatus constantly required for carrying on this work.
- C. To provide daily transportation for men from various hospitals to the University.
- D. To be responsible through the local distributing station for the selection and suitable allocation of cases up to the capacity of the plant, and for the regularity of attendance of such cases.
- E. To exercise general control and supervision of the work.

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- (5) The above plan is submitted as a purely tentative suggestion in the hope that it may assist the Toronto Branch of the Hospitals Commission with the growing problem of invalided men by furnishing an immediate step toward the establishment of a proper plant for re-educational work. In that connection, while the present University accommodation would certainly be insufficient for re-educational work next autumn, it might still offer facilities for research and for treatment of a limited number of selected cases.

E. A. Burt